

body, and about fifteen in an oblique line from the vent to the last dorsal spine. Two strong canine teeth in front in each jaw, the lower fitting in between the upper, the other teeth in both jaws well developed conical—no posterior canine tooth visible.

Colour greenish opaline, almost translucent when alive, tinged with orange along the anal fin, and with an oblong, indistinct, orange patch behind the eye, commencing on the forehead above and anterior to that organ; tail with alternate pale blue and dull orange bars, five in number; indistinct pale lines of the same tints on the membranes of the dorsal and anal fins, faint indications of blue spots on the scales on the abdominal and caudal regions. Eye bright orange.

This specimen is a young individual, with the coloration indistinct and but imperfectly developed; the adult will probably be of a bright orange tint, with blue spots on each of the body-scales and blue and orange bars on the tail and fins.

Caught at Manly Beach, Port Jackson. I believe that it is the first species of this genus recorded from Port Jackson.

NOTE ON THE OCCURRENCE ON THE COAST OF NEW SOUTH WALES
OF THE GENUS *Mesenteripora*, BL., (*Polyzoa Cyclostomata*).

BY WILLIAM A. HASWELL, M.A., B.Sc.

Among an interesting series of *Polyzoa* obtained with the dredge off Broughton Islands to the north of Port Stephens during the recent dredging excursion organised by the Australian Museum, were a number of specimens of the remarkable cyclostomatous genus *Mesenteripora*. Most of them were attached to the laminae of a species of *Biflustra*, or the thick cylindrical branches of a species of *Cellepora*, which was obtained in large quantity.

The genus *Mesenteripora* was established by Blainville (Manuel d'Actinologie) for one recent and several fossil species of *Polyzoa* which he regarded as allied to *Eschara*. Milne-Edwards (Ann. des Sci. Nat. 2d série, tome ix., p. 226, 1838) pointed out their true affinities with the Cyclostomata, and D'Orbigny in 1852 (Prodr. de Palæont. stat.) described several fossil species from the Cretaceous of France, and subsequently (Paléontologie Française, tome v., 1852) added descriptions and figures of several more fossil species. In 1844, S. Wood (Ann. and Mag. Nat. Hist., xiii., p. 14) had described a fossil species from the Crag which he named *Diastopora meandrina*; this species was afterwards described and figured by Busk (Fossil Polyzoa of the Crag, p. 109, pl. xvii., fig. 2, pl. xviii., fig. 4, and pl. xx., fig. 2—1859), and is said to have been obtained in the recent state off the coast of Greenland by Torell.

In the species described by Blainville, Milne-Edwards, Wood, and D'Orbigny, the polyzoarium assumed a lamellate-foliaceous, erect character, which induced the first named author to regard the genus as having a place in the *Escharidæ*. In the Australian variety on the other hand the polyzoarium never seems to assume this form. It is primarily flat and encrusting, growing outwards in a radiating or fan-like manner from the primary cell. In this stage the general form of the polyzoarium is very similar to that of *Tubulipora*, and closely resembles the young stage of *Mesenteripora meandrina* as figured by Busk (l. c., pl. xx., fig. 9). At the periphery the cells are three or four deep, the upper ones sometimes free to a slight extent, but never very prominent; wherever the lower layers come in contact with an obstacle (such as a *Serpula*-tube) there is a tendency in the upper cells to take a direction almost vertically upwards. The marginal cells are usually bilabiate, the lips being generally unequal and acute, but sometimes the peristome is circular and entire. The cells of the upper layer as the margin grows out beyond them become less prominent, though still projecting a little above the surface

of the polyzoarium, and become closed in by a punctated calcareous lamina, which grows over the mouth and is usually perforated in the centre by a slender projecting tube, the orifice of which is also sometimes in turn closed in; this tube is usually about a sixth to an eighth of the whole diameter of the mouth, but sometimes much less, and projects from the mouth of the cell to a length equal usually to about four or five times its own diameter. The form of these cells is nearly that figured by Busk as occurring in *M. meandrina*, with the exception of the central tubule, the place of which seems to be taken in the latter by a simple pore with a slight raised margin.

In process of growth the polyzoarium pushes out from its periphery radiating processes the cells in which have the same divergent tendency as in the original subcircular colony, and neighbouring processes as they wideu come into contact in such a manner that the mouths of their marginal cells of each process are obliquely opposed to those of the margin of the contiguous process, and the result is that, in order to make room for further growth, there is a curving upwards of the margins of these processes as they come into contact—a thick septum being formed between the cells of the contiguous processes. The outcome of this mode of growth is the formation of a series of radiating, low, thick, ribs or walls rising from the plane surface of the polyzoarium—each rib essentially consisting of the upturned edges of two contiguous lobes of the latter, separated by a mesial vertical septum. The flat portion of the polyzoarium meanwhile grows out from between these ribs until by a repetition of the same process, a second series of ribs may become formed external to the first. These ribs are usually not very high, rarely projecting more than a tenth of an inch above the general surface; a few of their marginal cells on either side are usually greatly elongated, projecting far beyond the others; the septum projects as a thin lamina well up beyond the cells contiguous to it.

As the present species appears to be distinct from *M. meandrina*,* and does not appear to be identifiable with any of the strictly fossil species, I propose for it the name of *M. repens* in reference to its creeping habit.

NOTE ON A SPECIMEN OF MALFORMED *Cypræa*.

BY J. BRAZIER, C.M.Z.S., &C.

Cypræa poraria.

Back very dark purple (destitute of the white dots and brown rings that are to be found in the typical form), base and the sides purple violet the inner and outer lips excavated very deep at each end, wide apart, produced in the middle; the teeth white, eighteen on the outer lip, extending nearly across to the margin, some short, and others elongated; fourteen on the columella side thickened and rounded at each end, aperture shaped like the figure eight.

This specimen was found by Mr. R. C. Rossiter, on the reefs at the Island of Ouen, New Caledonia. Length 12. Alt. 7. breadth 9 lines.

DESCRIPTIVE CATALOGUE OF THE FISHES OF AUSTRALIA.

BY WILLIAM MACLEAY, F.L.S., &C.

Part IV.

ORDER IV. *PHYSOSTOMI*.

All the fin rays are articulated; only the first of the dorsal and pectoral fins is sometimes more or less ossified. The ventral fins, if present are abdominal, without spine. Air-bladder, if present, with a pneumatic duct.

* In general habitat it resembles *Reticulipora dorsalis*, of Waters; but the form of the cells sufficiently distinguishes it.